

TOC or DOC by Persulfate Oxidation Method**SM 5310C-2000 (2011)**

ADDITIONAL QC REQUIREMENTS FOR THIS METHOD: Certified or Accredited laboratories using this method are assessed to applicable requirements of SM 1020 and SM 5020.

Facility Name: _____ VELAP ID _____

Assessor Name: _____ Analyst Name: _____ Inspection Date _____

Relevant Aspect of Standards**Method
Reference****Y****N****N/A****Comments**

Records Examined: SOP Number/ Revision/ Date _____ Analyst: _____

Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____

1) Are samples collected in glass bottles "protected from sunlight" [amber] and sealed with TFE-backed septa?	5310C.1.d, 5310B.1.d				
2) For nonpotable water, are samples held at ≤6°C, preserved with HCl, H ₂ SO ₄ , or H ₃ PO ₄ to pH <2, and analyzed within 28 days of collection?	40 CFR 136.3 Table 11				
3) For drinking water, are samples acidified at the time of collection to pH ≤ 2 or by the instrument manufacturer and analyzed within 28 days?	40 CFR 141.131(d)(3)				
4) If samples contain gross particulates or insoluble matter, are they homogenized until a representative portion can be aspirated?	5310C.4.b				
5) If determining DOC, are samples and reagent blanks filtered using a 0.45µm filter, and are filter blanks checked "regularly"?	5310C.4.b				
6) For preparation of reagents, blanks, and standards, is the reagent water TOC less than 2 times the MDL?	5310C.3.a, 5310B.3.a				
7) Are samples and standards manually injected repeatedly until consecutive peaks are reproducible to within +/-10%.	5310C.4.c, 5310B.4.c				
8) Is a method blank and a second-source LCS analyzed "after every tenth analysis"?	5310C.6, 5310B.6				
9) Is the efficiency of inorganic carbon removal checked for each sample matrix by splitting a sample into two portions, adding to one portion an amount of inorganic carbon similar to the level in the sample, and checking agreement between the two portions? <i>"The TOC values should agree."</i>	5310C.4.b				
10) Is the standard curve determined from peak area or height for a series of standards and blank?	5310C.4.d				
11) Are responses of the standards and samples adjusted by subtracting the reagent water blank?	5310C.5				

Notes/ Comments:

